

on transistor radio recollecting and restora

From the President

Again, we are finding that time does not stand still for any of us. As we enter the 2nd quarter of 2011, the VRPS has already been really active for the first three months of the year. Our Directors have met to formulate plans for an informative and membership engaging plan for the year. Our monthly meetings, led by Mike Grimes, continue to be first class. Take our February meeting for example. Dennis Brady put on a program

on transistor radio repair. That's right, an organization that prides itself on tube radio collecting and restoration, focused on that "other" type radio, the transistor. The meeting room was full. The program was informative and the interest, as measured by the attendance and questions from the audience, proved that we are on track with what you, as members, are wanting to know and learn about. If you are anywhere near the mid-cities area, i.e. Irving, Texas, on the third Saturday of the month, you really need to be attending a meeting. Of course, March is the time for our annual Spring auction. This March was no exception. About 60 members and some spouses gathered at the Senter East Building for an auction of several hundred items. This was the first time we had conducted such a large auction at this location, and frankly, there was concern about whether or not this venue would support such an event. NOOOOO problem. I wish there had been more tables to put the auction items on, but that is a minor issue...we had plenty of floor space. If things work out, we will be there again next March. Before we start each auction, we always offer regional clubs an opportunity to tell the crowd about up-coming events with their organizations. Jim Collings reminded us that the OKVRC guys would host their annual swap meet and auction on April 9th in Midwest City. I have attended this small, but active, event in the past, but it seems lately I have a conflict with other non-radio related events in my life. Several other members from north Texas make this an annual must do. I would recommend it and suggest you call Jim for additional details. Also, attending our auction and speaking for the Antique Radio Club of Illinois (ARCI), was newly elected president, Olin Shuler . Olin drove down from Quincy, Illinois, specifically for this auction. The ARCI club is making some changes to their own annual auction and wanted to see how we conduct ours. Their major event of the year is Radiofest, held this year the first weekend of August. This is one of the larger antique radio meets in the country and I always recommend it as a must do. Upcoming local activities include meetings, swap meets, and our annual repair session. I will look for you at all of these. Good hunting.

NOTES FROM THE BENCH

By Mike McCarty

When one is checking an "unknown" transformer, the first step is to identify pairs of wires which form windings. It's common knowledge that "the" winding with the highest resistance, and with a center tap is the high voltage winding in a power transformer. What isn't so well known is that it is very common for the DC resistance from the center tap to each leg of the high voltage winding to be different for the two legs.

The reason is that the winding is balanced for the number of turns, so that the induced voltage on each side is the same. However, since the winding is wound as a multilayer coil, the length of wire required to produce a single turn grows as more layers are added.

Hence, the DC resistance from the center tap to the leg connected to the outermost layer of the high voltage winding is greater than that to the leg connected to the innermost layer.

So, don't discard a transformer with a center tap just because the DC resistances to its associated legs differ. Check for shorted windings using a dim bulb instead, and check for voltage balance, not resistance balance.

This is also true of P-P output or driver transformers, though, usually with less difference.



DALE ALLEN AT HIS WORK BENCH

Vogue Picture Records

By Randy James

"What are those?" I often hear that when people see the colorful disks on my hallway wall. I tell them "Those are Vogue Picture Records from the 1940's"! The usual response is "Cool" or "No way" or, in the case of younger people, "What are records?"

Vogue picture records are phonograph records on the "Vogue" label which have pictures (artists illustrations) imbedded in the transparent vinyl of the records. The illustrations are usually related to the title of the song and have mostly romantic themes. They were were produced by Sav-Way Industries of Detroit, Michigan and were typically 10 inch 78 RPM records. The records were first released to the public in May 1946, and were a hit due to the novelty of the colorful artwork and improved sound quality compared to the common shellac records of the time. However, production ceased less than a year later in April 1947 after releasing 74 different records. Sav-Way Industries went into receivership in August 1947. The consensus is that their inability to attract known performers was a major reason for their failure.

Vogue records themselves were of a very high quality with little surface noise. They were produced using a complicated process, whereby an aluminum disk was sandwiched between the paper illustrations and vinyl, upon which the grooves were stamped. The content of the records ranged from big band to country and jazz. The records sold individually for about a dollar each and albums containing two records sold for less than \$3.00, and could be bought from Gimbel's and Sears- Roebuck.

One question people often ask me is "How much are they worth?". The answer to that is, like other collectibles, whatever someone will pay for them. They can range in price from \$30.00-\$40.00 all the way to \$5000.00 or more. The two factors that most affect the value is rarity and condition. I have about 30 of them and have typically paid \$20.00 to \$30.00 apiece. I like them because they are unusual, colorful, and don't take up much space. And besides, they are COOL!

(Much of the information for this article was obtained from the website of the Association of Vogue Picture Record Collectors, www.voguepicturerecords.org. This site has a wealth of information and pictures for anyone interested in Vogue picture records)

VOGUE PICTURE RECORDS







FROM THE VP

By Randy James

The 2011 Convention seems a long way off but it's only a little more than 6 months away. It's a good time to start thinking about your entries in the contest. The list of this year's categories is in this issue. There are some changes, so be sure to check it out. Also, notice the new category- "Items With the Name RADIO But Are Not Radios". This category was suggested by one of our members and was unanimously approved by the Directors. There was a time when the radio was the center of attention for many families and many companies used that association to sell their products. It will be interesting to see some of the items bearing the RADIO name. This brings me to another subject I would like to discuss. Every year we, your Board of Directors, decide on a theme or subject for the Convention, categories for the Contest, subjects for the Tech Talks, and entertainment for the Awards Banquet. We would welcome any ideas for these activities from the VRPS members. If you have any ideas you would like to contribute, would like to do a Tech Talk, or know anyone who would be an interesting speaker at the Banquet, by all means, let us know. After all, this is your club, too, and we can always use some fresh ideas. The same goes for monthly meetings. Mike Grimes does a great job as Program Director but it gets tough thinking of new ideas month after month. Some of our best meetings have been presented by our members like Patrick Jankowiak (oscilloscopes), Dennis Brady (transistor radios), Kurt Ehrlich (history of television), Jerry Merryman (history of handheld calculators), to name a few. Don't hesitate to offer suggestions for meetings or even to present one yourself.

You may remember that in the last issue of the Soundwaves, I ran a picture of me at my workbench under the Notes From the Bench article. I asked members to send similar pictures of themselves at their benches for future issues. Well, Dale Allen responded with a picture at his bench. You can see it in this issue under Notes From The Bench. I want this to be a regular feature. Please send me a picture of you at your bench. You can email it to me at randy-jeannine@sbcglobal.net (preferred), you can give it to me personally or mail it to me at 5544 Trail Lake Dr., Fort Worth, TX 76133.

Hope to see you at the Swap Meet this month. Until then, happy trails to you and keep on truckin' and collectin'.

NOTES FROM THE FEBRUARY 19, 2011 MEETING

By Bill McKeown

The club met at the Garden Arts Building in Irving, TX. President Jim Sargent welcomed the 40-some group and we had a "round robin" of introductions so everyone could get to know more new members and put faces to names. Jim announced that our annual spring auction in March was to be held at our other Senter East meeting place. Mike Grimes mentioned that the magazine "Inventions and Technology" 25th anniversary issue featured the 25 most important inventions of the 20th century. One of them was the transistor. Our program for the day was introduced by Mike - Transistor Radio Repair. He introduced Dennis Brady as our program presenter. Members had brought a number of early transistor radios and related materials, which were all arrayed for display along with Dennis' test equipment and printed materials. Also on display was an RCA transistor radio service training aid, with all the parts laid out on a background of the radio schematic diagram. Each part could be easily removed from its mounting spring to show what happens when the part is missing or open. Dennis gave a history of the early development of transistor radios. As for the transistors, there were four types available, the PNP and NPN versions of first germanium and then silicon devices. The germanium devices will operate on much lower supply voltages (even a single 1 ½ volt cell) than the silicon, but they have much higher leakage currents and widely varying properties from one to the next in the same family. The silicon devices provide much better performance in almost all respects. In the '60's the parameters were much better controlled. The 9 volt transistor battery evolved as the power source for silicon transistor applications, even though 9 volts was used in a lot of designs using germanium, or

a mix of both types. Dennis discussed the typenumbering systems and the identification of various emitter (E), base (B), and collector (C) lead arrangements that were established along the way. He also shared tips on identification of the leads using an ohmmeter, with a strong warning to not use the R x 1 scale. On many meters this scale puts too much current through the device and destroys it. Using an ohmmeter, Dennis sequenced through the 3 leads on a transistor, showing us how to identify them. One trick is to use saliva on a finger to bridge two leads, watching for a change on the ohmmeter, which is tied to two of the three. When the reading goes down, your finger is between the base and collector leads. Of course the meter polarity needs to be correct for the device type – PNP or NPN. For NPN, the collector lead will be tied to the positive lead of the meter. Germanium transistors have too much inherent leakage for this test to be very effective. As far as transistor radio collecting, Dennis pointed out that the medium and large models are the most desirable to collect, especially from the standpoint of being repaired more easily - some sets had sockets for the transistors (e.g. Zenith Trans-Oceanics). The performance of the larger sets is much better because they generally have larger ferrite rod "Loopsticks". He showed a schematic of an actual production radio - the Heathkit TR-2. Other tips included making the speaker click with an ohmmeter, checking the earphone jack (a common problem) and verifying that power is being drawn. Also, the most common part failure is the small electrolytic capacitor that couples the detected audio to the output driver. Dennis demonstrated equipment related to transistor testing, including a tester and a transistor curve-tracer that works with an oscilloscope.

Author's notes - Some transistors have four leads, with one of them tied to the case, providing a shield in high frequency (e.g. FM) applications. The author did all of the transistor radio repair for a radio/TV shop in the late 50's and early 60's, back when they were so expensive they justified being repaired. The really compact ones were difficult to work on, to say the least. The early radios used only PNP transistors, used in the common-emitter mode, so the battery supply voltage to the collector circuits (I.F. cans, etc.) was a negative voltage. Because of this, some schematic diagrams were difficult to get accustomed to, with the transistors shown at the top and their load circuits below. For collectors, the Standard Micronic Ruby seems to be the benchmark for difficulty. If open, the small electrolytic capacitor across the battery (when radio is switched on) can result in motor boating, especially if the battery is not an alkaline-type. One of the optional plug-in modules available for the famous Tektronix 545 oscilloscope provided transistor curve-tracing capability for the 'scope. Transistor curve-tracing was primarily a tool for circuit design engineers, although it can also be used to test transistors.

2011 CONVENTION OLD EQUIPMENT CONTEST CATEGORIES

It's not too soon to start preparing your entries for this year's contest! Be sure to look the list over as we have added some new categories!

- 1. Crystal Radios Pre 1960
- 2. Battery Receivers Pre 1928
- 3. AC Table Radios Pre WWII
- AC/DC Tube Radios
- 5. Transistor Radios Pre 1965
- 6. Phonographs and Related Accessories Pre 1928
- 7. Loudspeakers Pre 1930
- 8. Military and Amateur Radio Equipment
- 9. Novelty Radios- Tube or Transistor
- Open Category- Radio Related Items Not Included in the Other Categories
- 11. Art Deco Radios
- 12. Vacuum Tubes
- 13. Restoration Category (Entry must include documentation-pictures, etc.)
- 14. Foreign Radios (Vacuum tubes only)
- 15. Early Tube Audio Pre 1970
- 16. NEW CATEGORY- Items With the Name Radio, But Are Not Radios (Example: Radio Flyer Wagon)

MONTHLY MEETING PROGRAMS

NOTE: Programs will be held at various locations in Irving, Texas. Make note of the location as they will change from time to time. Senter East, 228 Chamberlain St.; Garden and Arts, 906 S Senter Rd; and Heritage Park, 217 S. Main St.; will be the locations. Refer to the WEB site. Programs start at 2pm. unless otherwise noted. Call us on the cell tellie if you get lost: 972-898-7251 or 972-742-8085.

MAY 21, 2011 Senter East Park; Irving, TX

Swap Meet/tailgate sale, parking lot. 8am to Noon. (You can come earlier, some will be there before dawn!)

JUNE 18, 2011 Senter East Building

Bill McKeown will present a vintage 16mm film showing of "Broadcasting Today." Many vintage radios are depicted and it will be interesting to try to identify them. Following the film, we will have a "SHOW and TELL". Please share your items of interest, restoration projects, new acquisitions, etc.

JULY 16, 2011 Senter East Building

ANNUAL Repair Clinic Session. Bring your vintage radio items for help in repair and restoration. Our "experts" will be on hand to help. 8am to 2pm. No afternoon program.

AUGUST 20, 2011 Senter East Park; Irving, TX

Swap Meet/tailgate sale, parking lot. 8am to Noon.

Programs are subject to change, contingent on scheduling conflicts. As always, your suggestions for programs/content are welcome. If the programs do not fit your needs and you want something different, let me know. I need volunteers to organize other programs, so consider presenting a program yourself.

Call me anytime or send me an email. Mike Grimes 972-898-7251 (cell), or K5MLG@verizon.net.

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